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10/760,141	01/16/2004	Brian Farnworth	FA/243A	7216
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/760,141

**Applicant(s)**

FARNWORTH, BRIAN

**Examiner**

ANISH DESAI

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 1-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's arguments in response to the Office action dated 08/15/07 have been fully considered.
2. Claims 1-49 are pending. Claims 1-26 are withdrawn. Support for newly amended claim is found in the specification.
3. The 35 USC Section 112-second paragraph rejections are withdrawn in view of the present amendment and response.
4. The 35 USC Section 103(a) rejections based on Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100) and Giese et al. (US 4,005,532) are maintained. It is noted that Applicant has amended claims 30, 48, and 49 which was previously rejected under aforementioned 35 USC Section 103(a). However due to Applicant's amendment a new 35 USC Section 103(a) rejection to claims 30-32, 37,40-43, and 46-49 based on Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100), Jacobson (US 3,373,512) and Giese et al. (US 4,005,532) is made.
5. The obviousness type double patenting rejections are maintained.

### ***Claim Objections***

6. Claims 48 and 49 are objected to because of the following informalities:
7. In claims 48 and 49 the recitation "one or more sections" should be replaced with "more than one section" in order for it to be consistent with the independent claim 30. Further in claim 48, "the" should be added before "structure material".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 27-29, 36, 38, 39, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100) and Giese et al. (US 4,005,532) substantially as set forth in the Section 7 of 08/15/07 Office Action.
9. Claims 30-32, 37, 40-43, and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100) Jacobson (US 3,373,512) and Giese et al. (US 4,005,532).
10. It is noted that disclosures of Kunetz, Smith, and Giese are previously disclosed in Section 7 of 08/15/07 and they are equally applicable here. Kunetz as modified by Smith is silent as to teaching "placing more than one section of the structure material in a gas impermeable envelope". It is noted that Smith discloses a single structure material. Additionally, Smith discloses steps of providing a mixture comprising a porous material selected from metal oxide, and compressing the mixture to form a structure material (see page 5, Section 7 of 0815/07 Office Action at beginning "The insulation body of Smith comprises...which reads on compressing the mixture to form a structure material...gas impermeable envelope as claimed."). To the Examiner, since Smith already discloses a single structure material, providing more than one sections of a

single structure material would involve routine skill in the art, motivated by the desire to further enhance insulation capabilities. Alternatively, reference of Jacobson is relied upon to show that it is known in the footwear art to provide more than one section of insulation material. Jacobson disclose a foot cover or overshoe of a type that can be fitted over regular street shoes (column 1 lines 20-25). Further, Jacobson discloses "The heel cover of the present invention consists of an overshoe member generally designated 10, made of shaped and preferably molded cast polystyrene foam which is very light in weight but which can be excellent heat insulator. **This may be molded in two pieces** [more than one section] such as a bottom portion having a bottom wall 11...or sole portion 11." (column 2 lines 6-17). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place more than one section of the structure material in a gas impermeable envelope, motivated by the desire to further enhance the insulation capabilities of a boot.

11. As to newly amended claim 48, Smith discloses heat-sealing the envelope after structure material is placed in the envelope (see column 11 lines 64-65, column 12 lines 1-2 and column 13 lines 1-6). Thus, it would have been obvious to one having ordinary skill in the art to provide a method further comprising sealing the envelope between one or more sections of structure material, motivated by the desire to form insulating structure. As to claim 49, it would have been obvious to provide flexibility for shaping the flat insulating structure into a shaped structure, motivated by the desire to suitably insulate the boot.

12. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100) Jacobson (US 3,373,512) and Giese et al. (US 4,005,532) as applied to claim 30 above, and further in view of Okoroafor et al. (US 5,691,392).

13. It is noted that Kuznetz is silent with respect to teaching porous material is fumed silica. However, Okoroafor discloses a stable particulate composition. According to Okoroafor, when the stable particulate dispersion of this invention are used as additive to enhance the thermal insulation performance of foams, the preferred particulate material is silica. Additionally, Okoroafor discloses classes of silica that may be used are for example silica aerogels, fumed silica etc. (column 6 lines 44-57). It is noted that the primary reference of Kuznetz discloses particulate materials such as silica aerogels. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute fumed silica of Okoroafor in place of silica aerogel in the invention of Kuznetz, because these two materials are shown to be art recognized equivalent for the purpose of providing insulation.

14. Claims 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuznetz (US 4,813,160) in view of Smith et al. (US 5,877,100) Jacobson (US 3,373,512) and Giese et al. (US 4,005,532) as applied to claim 30 above, and further in view of Holman et al. (US 6,045,718).

15. It is noted that Kuznetz is silent with respect to teaching porous material is fumed alumina. However, Holman discloses microporous insulation for data recorders. The

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microporous insulation material of Holman contains inorganic particulate material, endothermic compounds, optionally an opafier, inorganic fiber and preferably a dry resin or other binder (abstract). The inorganic material can comprise only hydrophilic material or both hydrophilic and hydrophobic material (abstract). Holman discloses inorganic material such as fumed alumina (column 3 line 59). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the fumed alumina in the invention of Kuznetz as modified by Smith Jacobson and Giese, motivated by the desire to enhance the insulating characteristics of the shaped insulating structure.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-34 of copending Application No. 11/106,788 in view of Garbuio (US 3,925,916) substantially as set forth in the previous Office Action.

***Response to Arguments***

17. Applicant's arguments received on 02/15/08 have been fully considered but they are not found persuasive.

18. Applicant argues that "'160 does not teach a method of insulating a boot; it teaches an athletic shoe preferably formed of a fabric or light-weight material of high flexibility suitable for an athletic shoe (col. 3). '160 does not teach forming a flat insulating structure by placing a structure material in an envelope evacuated of air and sealed at reduced pressure; it teaches a structure in the form of a fibrous pad having air trapped therein. '160 does not teach forming a flat insulating structure comprising more than one section of structure material to facilitate shaping. '160 does not teach shaping a sealed evacuated flat insulating structure in to a shaped insulating structure and providing this insulating structure to a toe cap, boot upper, or boot sole; it teaches placing the pad between two flexible soles. Applicant respectfully asserts that the shoe of '160 appears to suggest little with regard to the claimed method of insulating a boot, except that it is directed to an article that can be worn on a foot and it has insulation." The Examiner respectfully disagree for following reasons:



19. As to the preamble limitation of "A method of insulating a boot" note a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In the presently claimed invention '160 patent discloses of providing a thin insulating insert that acts as a thermal barrier minimizing the conduction of ground heat to the shoe interior (see abstract). Thus, the fact that '160 patent provide a thin insert in to insulate a shoe, meets the claim requirement of "a method of insulating a boot" as claimed.

20. As to the arguments that "'160 does not teach forming a flat insulating structure by placing a structure material in an envelope evacuated of air and sealed at reduced pressure; it teaches a structure in the form of a fibrous pad having air trapped therein. '160 does not teach forming a flat insulating structure comprising more than one section of structure material to facilitate shaping.", it is respectfully submitted that the secondary reference of Smith '100 is relied upon to teach these features (see page 5 of 08/15/07 Office Action beginning at "Further Smith discloses that if desired...as claimed...Smith further discloses that the bag is first evacuated at low pressure...by heat-sealing the enclosure (column 13 lines 1-6)."). Additionally, as to the requirement of **flat** insulating structure, Smith discloses same process as that of Applicant in forming the insulating structure of his invention, specifically Smith discloses compressing of the mixture to form a structure material, placing the structure material in a gas impermeable envelope,

and evacuating the air from the envelope at reduced pressure and sealing the envelope, thus the insulating structure of Smith would necessarily be flat as required by the claims because it is produced by similar process.

21. With respect to argument that '160 does not teach forming a flat insulating structure comprising more than one section of structure material to facilitate shaping, these arguments are not commensurate in scope with the claims (at least independent claim 27). Specifically claims (at least independent claim 27) do not require "more than one section of the structure material". Additionally, as stated previously it is noted that Smith discloses a single structure material. Specifically, Smith discloses steps of providing a mixture comprising a porous material selected from metal oxide, and compressing the mixture to form a structure material (see page 5, Section 7 of 0815/07 Office Action at beginning "The insulation body of Smith comprises...which reads on compressing the mixture to form a structure material...gas impermeable envelope as claimed.")). To the Examiner, since Smith already discloses a single structure material, providing more than one sections of it would involve routine skill in the art, motivated by the desire to further enhance insulation capabilities. Alternatively, reference of Jacobson is relied upon to show that it is known in the footwear art to provide more than one section of insulation material. Jacobson disclose a foot cover or overshoe of a type that can be fitted over regular street shoes (column 1 lines 20-25). Further, Jacobson discloses "The heel cover of the present invention consists of an overshoe member generally designated 10, made of shaped and preferably molded cast polystyrene foam which is very light in weight but which can be excellent heat insulator. **This may be**

**molded in two pieces** [more than one section] such as a bottom portion having a bottom wall 11...or sole portion 11." (column 2 lines 6-17). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place more than one section of the structure material in a gas impermeable envelope, motivated by the desire to further enhance the insulation capabilities of a boot.

22. As to the arguments that '160 does not teach shaping a sealed evacuated flat insulating structure in to a shaped insulating structure and providing this insulating structure to a toe cap, boot upper, or boot sole", the Examiner respectfully submits that the step of "shaping the flat insulating structure into a shaped insulating structure" is obvious to one of ordinary skill in the art, because it would have been obvious to shape the insulating structure such that it can be suitably used in footwear. Additionally, the insulating structure of '160 (i.e. insert 13) as shown in Figure 6 has a thickness that is less than the thickness of the other layers (e.g. layer 12). Thus, the insulating structure of '160 would have been shaped prior to its placement in the shoe of '160.

23. Applicant argues that "There is no motivation to replace the insulation of '160...with an air evacuated...such as refrigerators." The Examiner respectfully disagrees. It is respectfully submitted that the motivation to combine '160 patent and '100 patent is provided on page 7, first paragraph of 08/15/07 Office Action beginning at "Thus, it would have been obvious to...to use the vacuum panel of Smith...conductivity."

24. Applicant argues that "In addition to providing insulation, one skilled in the art would understand insulating structures suitable for use in athletic footwear to require a combination of features such as thinness, compressibility, flexibility...Applicant asserts that one skilled in the art of footwear...activity.". The Examiner respectfully disagrees because Applicant's argument based on the assertion that "one skilled in the art would understand insulating structures suitable for use in athletic footwear to require a combination of features such as thinness, compressibility, flexibility, impact resistance, and/or durability from the rigors of athletic activity" are not found persuasive because they are not commensurate in scope with the claims. Claims do not require a boot with features such as thinness, compressibility, flexibility as pointed out by Applicant; instead claims are merely directed to a method of insulating a boot. Moreover, there is no factual evidence on the record that would indicate that the vacuum panel structure of '100 would fail when combined with '160 patent.

25. As to the arguments that there is no teaching of the step of shaping after evacuation. It is respectfully submitted that the step of "shaping the flat insulating structure into a shaped insulating structure" is obvious to one of ordinary skill in the art, because it would have been obvious to shape the insulating structure such that it can be suitably used in footwear. Additionally, the insulating structure of '160 (i.e. insert 13) as shown in Figure 6 has a thickness that is less than the thickness of the other layers (e.g. layer 12). Thus, the insulating structure of '160 would have been shaped prior to its placement in the shoe of '160.

26. As to the argument that '160 in view of '100 does not suggest a vacuum panels can be made for durable use as required in footwear. The Examiner respectfully disagrees. It is noted that '160 desires a thin insulating insert (abstract) and minimization of heating of a foot housed in a shoe that uses such an insert (column 1 lines 5-15). It is noted that the reference of '100 patent provides a composition and insulation body comprising said composition which has improved thermal conductivity and further the thickness of the vacuum panel (insulation body) of '100 patent can be as thin as 3 mm, which would make it suitable for use in application such as shoe of '160 which desires a thin insulating insert (column 2 lines 59-60) with reasonable expectation of success. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the vacuum panel of '100 as a thin insulating insert in the invention of '160, motivated by the desire to provide an insulating insert with improved thermal conductivity.

27. As to the arguments regarding the thickness of less than 3 mm, please see the Examiner's comments set forth on page 8 of 08/15/07 Office Action beginning at "It would have been obvious to one having...provide the insulating insert of Smith with the thickness...insulates the shoe". With respect to Applicant's arguments regarding the thermal conductivity, please see the Examiner's comments set forth on page 6 of 08/15/07 Office Action.

28. With respect to arguments that there is no motivation to modify '160 in view of '532, the motivation is provided on page 7 of 08/15/07 Office Action beginning at "Thus, it would have been obvious...the most sensitive to cold as taught by Giese ['532]." . As

to the argument that '160 in view of '100 does not teach "a sealing step for forming...provide flexibility for shaping." (claims 48-49), please see the Examiner's comments as set forth above in Section 11 of this Office Action. Accordingly, Applicant's arguments are not found persuasive.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Vo can be reached on 571-272-1485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Hai Vo/

Hai Vo

Primary Examiner, Art Unit 1794